

The Rhino Foundation

for nature in NE India

Newsletter

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**THE RHINO FOUNDATION
FOR NATURE IN NE INDIA**
Newsletter No. 6 December 2004

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Publications of The Rhino Foundation:

Survey of wildlife in Bherjan, Borajan & Podumoni RPs with a proposal for a wildlife sanctuary.
Survey of White-winged wood duck and the Bengal florican in Tinsukia district & adjacent areas.
Dhansiri Tiger Reserve. Revised proposal. Birds of Nongkhylem. Survey of Mrs Hume's Pheasant in NE India. Birds of Kaziranga national park - a checklist. A pocket guide to the birds of Nagaland. Newsletters, No.1 (1996), No.2 (1998), No.3 (2001), No.4 (2002), No.5 (2003). Two posters on conservation.

COVER: Phayre's leaf monkey *Presbytis (=Trachypithecus) phayrei* in Putni, Karimganj district. The entire population of this rare primate in Assam is outside the protected areas (also see p.32).

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(Photo : ANWARUDDIN CHOUDHURY)

A decade of conservation:

REPORT

The Rhino Foundation for nature in NE India, 1994 - 2004

ANWARUDDIN CHOUDHURY, *Honorary Chief Executive*

The Rhino Foundation for Nature in North East India, a leading non-governmental organisation (NGO) of the country continued its conservation activities. The Foundation has completed 10 years of existence (founded in 1994) and during this decade this NGO has worked for the conservation of wildlife in north-east India. The organisation stuck to its objective of maintaining sustainable use of natural resources for a healthy development of future generations. The Foundation continued its appeal for support for this important cause from all concerned.

Projects

The projects undertaken and completed since its inception were explained and listed

in details in the previous issues of this newsletter (No.3, June 2001; pp. 1-5. No.4, June 2002; pp. 1-4; No.5, June 2003; pp. 1-4) and are also summarised here in Table 1. During the last year, the Rhino Foundation had undertaken conservation projects in the protected areas and their fringes in Assam and a survey project in Arunachal Pradesh. Elsewhere in the region, the network, which was established with other NGOs as well as governmental agencies, has been maintained through regular contact.

Treatment of patrolling elephants in the protected areas

One of the main projects that are nearing completion was veterinary care for the patrolling elephants of different protected areas of Assam. It was supported by US Fish & Wild-

Table 1: Major Projects completed/ongoing

Sl No.	Name	Year	Remarks
1.	Field staff equipment	1995-96	Funding: Own sources. Completed.
2.	Eco-development	1995-96	Funding: Own sources. Completed.
3.	Repairing of wireless, Reward, etc	1995-96	Funding: Own sources. Completed.
4.	Forest Guard Equipment	1997-98	With support from Rhino & Tiger Conservation Fund (RTCF) of United States Fish & Wildlife Service (USFWS). Completed.
5.	Post-flood emergency assistance	1998	Supported by Rhino Rescue Trust, UK. Completed.
6.	Aid to Kaziranga (repairing of countryboats)	1998	Supported by WWF-Tiger Conservation Programme (TCP). Completed.
7.	Wireless Systems	1998-2001	With support from RTCF of USFWS. Completed.
8.	Motorcycles	1999-2000	Supported by Fauna & Flora International, UK. Completed.
9.	Support to Orang national park	1999-2001	Supported by WWF-Tiger Conservation Programme (TCP). Completed.
10.	Support to Nameri national park	1999-2001	Supported by WWF-TCP. Completed.
11.	Veterinary camp for patrolling elephants	2001-02	With support from Assam Elephant Conservation Fund (AECF) of USFWS. Nearing completion.
12.	Survey of birds and mammals of Dibang-Dihang Biosphere Reserve	2002-05	Supported by Ministry of Environment & Forests, Government of India. Ongoing.
13.	Anti-poaching support to Nongkhyllem sanctuary, Meghalaya	2004-05	With support from Assam Elephant Conservation Fund (AECF) of USFWS. To start soon.

Table 2: Veterinary Care Camps for Patrol Elephants

Protected Area	Date of Camp	No of Elephants Treated/Examined
2001-02		
Manas national park	3-5 February 2002	26
Nameri national park	19-21 January 2002	13*
Orang national park	5-7 January 2002	13
Pabitora wildlife sanctuary	29-30 December 2001	7
Total	4	59
2002-03		
Kaziranga national park	2 February and 1-2 March 2003	8, 6
Manas national park	29-30 March 2003	20
Nameri national park	13-15 July 2002; 22-24 February 2003	11, 12
Orang national park	16-18 June 2002	15
Pabitora wildlife sanctuary	25-26 May 2002	7
Total	7	79
2003-04		
Kaziranga national park	20-21 July; 16-17 August; 1-2 and 14-16 November 2003	31, 34, 46, 28
Manas national park	28-29 June and 25-26 October 2003	27, 4
Nameri national park	3 May 2003	12
Orang national park	1 May 2003; 24-26 January and 21-22 February 2004	18, 14, 2
Pabitora wildlife sanctuary	26-27 April, 8 June and 6 September 2003	7, 6, 3
Total	12	232
GRAND TOTAL	23	370

life Service under its Asian Elephant Conservation Fund. Although the project was meant for one year only, it continued for four years. The camps organised so far and other details are given in Table 2. Since further support for this important project has not been received, it will end by 2004. The patrol elephants are essential for protected areas such as Kaziranga, Manas, Nameri, Orang and Pabitora. They not only provide the Forest Guards a vantage position but can also take them anywhere in the park. These elephants have become very effective against the poachers in tall grassland habitat. The veterinarians who had participated in the camps were members of Early Birds, a Guwahati-based NGO with experience of similar activities and individual experts such as Dr K.K.Sharma for specialised treatment.

Survey of birds and mammals in Dibang-Dihang Biosphere Reserve

Due to non-release of second instalment, this survey could not be done throughout the winter. A brief survey was done in Dibang Valley and Upper Dibang Valley districts in Arunachal Pradesh in March 2004. The main focus of this survey was documentation of birds and mammals of this poorly known biosphere reserve. The most important find of this brief fieldwork was the record of the recently discovered leaf muntjac *Muntiacus pulaoensis*. Dibang Valley is a new site for this species, which is also the northernmost in its range (also see 'Briefly'). Taken *Budorcas taxicolor*, Sclater's Monal *Lophophorus sclateri* and Dark-throated Thrush *Turdus ruficollis* (on passage) were also recorded. The survey was interrupted by heavy rain followed by landslides.



Ranger Mr L. Ramchiary on patrol in Bhuyanpara, Manas national park with motorcycle provided by the Rhino Foundation. Photo: Anwaruddin Choudhury

Manas – World Heritage Site in danger

The Rhino Foundation has donated a motorcycle to this famous national park for use by the Ranger of Bhuyanpara Range. Till now, this hike remains the only mode of transportation in this remote range of Manas national park. Pigmy hog *Sus salvanius*, tiger *Panthera tigris*, clouded leopard *Neofelis nebulosa*, Asiatic or Himalayan black bear *Ursus thibetanus*, elephant *Elephas maximus*, gaur *Bos gaurus*, wild water buffalo *Bubalus arnee* and Bengal Florican *Houbaropsis bengalensis* still occur in Bhuyanpara Range, which also includes Koklabari area. A couple of stray rhinoceros *Rhinoceros unicornis* were also reported.

Book release

Mark Shand, the well known British author had released a book entitled 'Birds of Kaziranga: a checklist', written and illustrated by the honorary Chief Executive (C.E.) and published by the Rhino Foundation during the Elephant festival at Kaziranga on 1 February 2004. Pradyat Bordoloi, Assam's

Minister for Environment & Forest and late Indira Miri, noted litterateur and wife of one of the pioneer Forest Officers of Kaziranga, late Mahi Miri were also present.

New wildlife sanctuaries in Assam

Three new wildlife sanctuaries have been notified in Assam in June 2004. All these were initially surveyed and proposed by the honorary C.E. of the Rhino Foundation in 1980s.

AMCHANG wildlife sanctuary, 79 km², is located near Guwahati, the capital city of Assam. This area was recommended for the first time for protection of its isolated elephant population in 1985 and then for its gaur and proximity to Guwahati city (see *Newsletter of the Rhino Foundation* No. 4).

BARAIL wildlife sanctuary, 326 km², is located in Cachar district of southern Assam. This area was recommended for protection of its overall biodiversity with special focus on primates in 1988 and 1989. Seven species of primates are found. Among threatened birds, there are Rufous-necked Hornbill *Aceros nipalensis* and Beautiful Nuthatch *Sitta formosa*.

DIHING-PATKAI wildlife sanctuary, 111 km², is located in Tinsukia and Dibrugarh districts of eastern Assam. This area was recommended for protection of its primates in 1989 and for significant population of White-winged Wood Duck *Cairina scutulata* in 1996. The well-known rainforests of Upper Dihing and Joypur forms part of this sanctuary.



Table 3: Poaching of Rhinoceros in key P.A.s since 1998 compared to 1990, 1992, 1993

Protected Area	1990	1992	1993	1998	1999	2000	2001	2002	2003	2004*
Kaziranga NP	34	48	40	8	4	4	8	4	0	1
Orang NP	0	2	1	12	7	8	1	0	0	0
Pabitora WS	2	3	4	4	6	2	0	1	2	1
TOTAL	36	53	45	24	17	14	9	5	2	2

* up to 30 November 2004; some poaching did take place elsewhere, e.g., 4 in 2003 and 2 in 2004.

Other activities

Other activities included maintenance of a network of informers around the key protected areas. These informers, who may never get open recognition, have played an important role in checking poaching, especially of rhinoceros. This along with continued governmental effort as well as input from other NGOs had yielded excellent results. The poaching figures of rhinoceros in Orang and Kaziranga national parks and Pabitora sanctuary indicate the scenario (Table 3).

Appendix 1 and 2 list some of the main items donated and also construction works by this foundation for a quick reference.

Assam Forest Policy

The government of Assam has accepted with some modifications the State Forest Policy, which was drafted by a committee that included the honorary Chief Executive (C.E.) of this foundation. The committee was headed by Dr Anil Goswami.

Networking

The foundation has maintained its network with different governmental agencies, NGOs and individuals across the NE India as well as outside. Moreover, the foundation has also maintained links with its network of informers in different parts of the region.

Awareness, motivation, etc.

The honorary C.E. had delivered a number of popular talks with slide-shows and also distributed posters across the northeast. Informal meetings with villagers as part of awareness campaign were also held in some

remote areas such as Hunli in Arunachal Pradesh, and Tuensang, Noklak, Baghty, Chongtongya, Khonoma, Poilwa and Pangsha in Nagaland. A booklet entitled *A pocket guide to the birds of Nagaland* was released by the Head Gaon Burha of Kohima in February 2004.

Meetings, workshops, etc.

The honorary C.E. had participated in the World Parks Congress at Durban, in Republic of South Africa in September 2003. In February 2004, he attended a summit meeting on vultures at Kathmandu. In March 2004, he visited Andamans as a member of an 'Expert Committee' on domestic elephants set up by the Ministry of Environment & Forests, Government of India. In April 2004, he participated in the International Galliform Symposium held at Dehra Dun where he presented a status report on the galliformes of NE India.



Awareness drive: the honorary C.E. talking to a Chang Naga villager at Tuensang village, Nagaland.

Census of Wild buffalo

The honorary C. E. had participated in a census operation for the endangered wild water buffalo in Manas national park in March 2004.

Repairing of equipments

The following items vital for anti-poaching activities in Pabitora wildlife sanctuary were repaired: motorcycle (1), wireless hand sets (8), adaptor (5) and battery charger (3).

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Like previous issues, this issue has also maintained high standard with a number of distinguished contributors from India and abroad, who are well known in their respective field of activities.

Acknowledgements

The Trustees of the Rhino Foundation for their continuing support. The US Fish & Wildlife Service and the Ministry of Environment & Forests, Government of India for their support, which enabled project activities in the field.

We are grateful to David Fergusson, Fred Bagley and Carl Stromeyer of US Fish & Wildlife Service; Bob Risebrough (expert on vulture disease); S. S. Bist, Director, Project Elephant, Government of India; and S.S.Samant of G.B.Pant Institute of Himalayan Environment & Development.

The support and assistance of the following

are also gratefully acknowledged: in *Assam*, Pradyut Bordoloi, Minister of Environment & Forest; L. Rynjah and P. P. Varma, Principal Secretaries, Forest; S. Doley, PCCF; M. C. Malakar, CCF (wildlife); Chohan Doley and Ms Juri Phukan, both Addl. Deputy Commissioners; N. Vasu, Director of Kaziranga; A. Rabla, Director of Manas; R. K. Das, H. P. Phukan, S. Momin (all DFOs); Dharanidhar Boro, Mrigen Barua, M. Brahma, L. K. Ramchiary (all Range Officers) and other staff. In *Assamachal Pradesh*, we thank S. N. Kalita and S. K. Raha, both CCF (wildlife).

For their continued support, we thank: in *Assam*, Anil Goswami of WWF, Bikul Goswami of Green Heritage, Moloy Baruah of Early Birds, Bibhab Talukdar, Firoz Ahmed, Rathin Barman and Bibhuti Lahkar of Aaranyak, Kulojyoti Lahkar, Bhargav Das of Green Society, Tridib Phukan, H. P. Agarwala and Anul Borgohain (last three of Assam Bhoreli Angler's Association), Joyanal Abedin of Dibra-Saikhowa Wildlife Society, Lutfur Rahman and others of Assam Co.; : in *Nagaland*, Neisatuo Kreditsu, Tsile Sakhire, Tsangchingla Imlong, H. Shou, Khekiho Sohe, and Thomas Kent of Nagaland, late Abdul Rashid of Orang, Monu Nath, Dilwar Husain, and Belinda Wright of Wildlife Protection Society of India, New Delhi.

Lastly, the small staff of the Rhino Foundation based at Guwahati and Kolkata whose untiring efforts ensured that the works are being completed with success.

Appendix 1: Donation and construction of some major items since 1995

Protected Area	Motor-cycle	Motor-boat	Country-boat	AP Camp	P. Path	Wireless Mainset	Wireless Handset	Solar Charger	Battery Charger	TL
Kaziranga NP	1	—	—	—	—	—	—	—	—	5
Nameri NP	1	—	—	1	27 km	—	—	—	—	—
Orang NP	2	2	5	4	—	3	16	10	8	—
Pabitora WS	2	—	—	—	—	2	9	5	5	3
Manas NP	1	—	—	—	—	—	—	—	—	—
TOTAL	7	2	5	5	27 km	5	24	15	13	8

AP Camp= construction of anti-poaching camp; P. Path= lying of patrolling path; TL= tarpaulin (53'x12' sheets).

Appendix 2: Donation of some other items since 1995

Protected Area	1	2	3	4	5	6	7	8	9	10	11	12	13
Barnadi WS	—	—	—	—	—	—	4	—	—	—	—	—	—
Burhachapori WS	90	90	—	—	90	30	5	—	—	—	—	—	—
Dibru-Saikhowa NP	—	—	—	—	25	—	5	—	—	—	—	—	—
Kaziranga NP	800	550	—	—	1090	250	171	50	130	—	4187	—	—
Lakhowa WS	60	60	—	—	60	30	5	—	—	—	—	—	—
Manas NP	300	300	—	—	300	90	20	—	—	—	—	—	—
Nameri NP	—	—	—	—	111*	—	5	—	—	—	—	—	—
Orang NP	100	100	90	90	300	60	25	—	—	71	—	3	3
Pabitora WS	165	100	—	—	183	60	30	13	25	4	1102	3	—
TOTAL	1515	1200	90	90	2159	520	265	63	155	75	5289	6	3

1= raincoat; 2= warm jersey; 3=jacket; 4=uniform (pairs); 5= huntingboot (pairs); 6= haversack; 7= drinking water-filter; 8= water-filter candle; 9= hurricane lantern; 10= torchlight; 11= torch battery; 12= wireless antennae; 13= extra wireless battery. * = shared between Nameri and Burhachapori; Fire-crackers were also donated to Pabitora for anti-depredation.

THE BHERJAN BORAJAN FOUNDATION FOR NATURE IN NE INDIA AT A GLANCE

1994. Founded by some like-minded conservationists and tea companies. Concerned about the endangered wild life species in north east India with the Indian rhinoceros as its flagship species.

1995. Started functioning with Mrs Anne Wright, MBE as the founder Chairperson, Dr Anwaruddin Choudhury as the founder Chief Executive (C.E.), and R. Adige, K. S. David, R. L. Rikhye and M. P. S. Sidhu as the founder Trustees. The proposed site for mega-cement plant near Balpakram national park in Meghalaya surveyed. The campaign that followed resulted in shelving of the project. Field staff equipments donated to Kaziranga and other protected areas in Assam. Veterinary care and awareness camps organised. Two posters on endangered species and a report entitled, *Survey of wildlife in Bherjan, Borajan & Podumoni RFs with a proposal for a wildlife sanctuary* produced.

1996. The first issue of *Newsletter* published. Invited Dave Fergusson of the US Fish & Wildlife Service and organised meeting with late Nagen Sharma, then Forest Minister of Assam. The result was the beginning of a long-term conservation programme which benefited government of Assam and other NGOs. Organised World Environment Day function at Guwahati in collaboration with Explorers (NGO). Field staff equipments donated to protected areas in Assam. Veterinary care and awareness camps organized. By the end of the year, Anwaruddin Choudhury left the post of C.E. but continued as the honorary C. E.

1997. Provided equipments to Forest Guards in Kaziranga and other protected areas.

1998. Emergency assistance to Kaziranga after a deva-

slating flood. The 2nd issue of *Newsletter* published.

1999. Provided new wireless sets to Orang and Pabitora. The government of Assam notified Bherjan-Borajan-Podumoni Wildlife Sanctuary, the proposal for which was published by the Foundation.

2000. Four anti-poaching camps constructed in Orang. Motorcycles donated to Orang and Pabitora.

2001. Inducted as member of the Indian Board for Wild Life, the highest body in the country, chaired by the Prime Minister. Provided motorcycles to Nameri and Kaziranga. The 3rd issue of *Newsletter* published.

2002. Petitioned before the Ministry of Road Transport & Highways, govt of India for permanent rumble strips near Kaziranga to reduce death of animals. The Ministry vide its letter No. NH-12037/59/2002-AS/NH-10 dated May 27, 2002 agreed. The 4th issue of *Newsletter* published. Veterinary care camps for patrol elephants. Faunal survey in Dibang-Dihang biosphere reserve, Arunachal Pradesh. The honorary C. E. joined Environment & Forest department, Assam as Joint Secretary.

2003. The veterinary care for patrol elephants and faunal survey in Dibang-Dihang in Arunachal Pradesh continued. The 5th issue of *Newsletter* published. The government of Assam notified a new wildlife sanctuary, Nambor-Doigrung, identified as potential site and then proposed in 1980s by the honorary C. E.

2004. The government of Assam notified three new wildlife sanctuaries, Amchang, Barail and Dihing-Pathai, identified as potential sites and then proposed in 1980s by the honorary C. E. A conservation project (anti-poaching support) in Nongkhyllam wildlife sanctuary in Meghalaya initiated. □

Kaziranga: the century's greatest conservation success

PRADYUT BORDOLOI*

The Kaziranga national park, a World Heritage Site and a globally recognized biodiversity hotspot is on the threshold of celebrating its 100 years of glorious existence. Kaziranga typically reflects the flavour of extremely rich tropical forests and grasslands of Assam.

Assam is known habitat of about 3020 species of flowering plants and a good number of medicinal plants, which include several rare, endangered and endemic species. In addition, there are about 193 species and subspecies of mammals, 45 of which are endangered, and nearly 820 species of birds besides innumerable types of reptiles and amphibians.

Kaziranga has achieved remarkable success in conservation of the great Indian one-horned rhinoceros *Rhinoceros unicornis*, now being described as the 'greatest conservation success story of the century'. It is an outstanding example of ongoing significant ecological and biological processes in the evolution and development of floodplain ecosystem and communities of plants and animals. This World Heritage Site has deep linkages with intra-community existence offering a broad canvas of eco-biological diversity. While celebrating the centenary, Kaziranga would show case this eco-biological process in the evolution as well as the life styles, cuisine, artifacts, handloom and handicrafts besides the traditional knowledge base of the ethnic communities who live in the fringe areas.

Kaziranga is one of the largest national parks in India and one of the most significant protected wildlife habitats on the globe. From the time it was declared a proposed reserve forest in 1905 for the conservation of the great Indian one-horned



The number of rhinoceros in Kaziranga has increased from a few dozens to more than 1600 during the past 100 years. *Photo: Anwaruddin Choudhury*

rhinoceros, it has become an exceptional role model in conservation besides providing an ideal habitat for numerous other threatened species. It is a symbol for the dedicated commitment of the people who work ceaselessly to protect and preserve this richly diverse biological heritage.

While Kaziranga has deservedly earned the distinction of being the century's greatest conservation success story and the great Indian one-horned rhinoceros being projected as the USP for the park, the time has come to project the other dimensions of park, i.e., its priceless biodiversity. The centenary celebration is just an occasion to highlight the biodiversity of the entire northeastern region creating awareness among its own people for protection and conservation of the biodiversity of this part of the globe. That is why the Kaziranga centenary's one of the highlights is to hold a 'Biodiversity Flame March' emanating from each of the state capitals of the eight states of the north eastern region and converging in Kaziranga, which

will be received by the Hon'ble Prime Minister of India on the 13th of February 2005.

The centenary celebration would also be an occasion to hold perhaps the largest conglomeration of wildlife experts and biodiversity conservationists in this region coming from different parts of the world to share knowledge, experience and to debate and discuss for charting a road map for tackling the conservation issues, which are posing as challenges affecting biodiversity conservation in this part of the globe. Besides the frills, the centenary celebration will have brainstorming and interactive sessions on four key areas such as grassland management, human-wildlife coexistence, avifaunal diversity and its conservation, and nature tourism for sustainable community participation, and finally 'Vision Kaziranga – beyond 2005'. The now famous 'Elephant Festival' of Assam conceived two years back, as a conflict resolution strategy to sensitise people for

The centenary celebration will endeavour to showcase not only the priceless biodiversity but also put Kaziranga as a hub for dynamic aspects of conservation, research, education and recreation values in the next century.

addressing the human – elephant conflicts would be another attraction of the centenary celebration.

The centenary celebration will endeavour to showcase not only the priceless biodiversity but also put Kaziranga as a hub for dynamic aspects of conservation, research, education and recreation values in the next century. □

• PRADYUT BORDOLOI, Minister of State (independent charge), Environment & Forest Department, Government of Assam, Dispur, Guwahati 781 006, India.
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KAZIRANGA CENTENARY CELEBRATION 1905-2005

11 February 2005 Showcase Kaziranga

12 February 2005 Inauguration

13-16 February 2005 Brainstorming Sessions [international seminars;
venue: interpretation center, Kohora]

- Grassland management, • Human-wildlife coexistence, • Nature tourism,
- Avifaunal diversity and its conservation, • Vision Kaziranga – beyond 2005.

17 February 2005 Closing ceremony

Other highlights: Elephant festival, photo exhibition, crafts & handloom bazaar, adventure sports, jeep safari, elephant safari, trekking, bihu, food festival, cultural festival, river cruise, etc.

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The idea of organising the centenary of KAZIRANGA was mooted by Pradyut Bordoloi, Minister of Environment & Forest, Assam in the year 2003-04.

Has the tiger a future in India?

PETER JACKSON*

The Indian subcontinent, including India, Nepal, Bhutan and Bangladesh, is home to more tigers than any other area in Asia, and of more than half of all the estimated surviving tigers, which may number between 5,000 and 7,000. Most of the tigers are in India, but those in Nepal, Bhutan and Bangladesh are still part of the "Indian" population. Given their number, the subcontinent's tigers would appear to have the best probability for long-term survival. However, they are subject to a number of serious threats, and there is an urgent need for action.

It is now 30 years since tiger conservation began in the subcontinent. Before that, in the 1940s, the tiger had no protection; trophy hunters were flying in to join Indian hunters; skins were being exported in the hundreds to western markets. Early extinction seemed a possibility. Then came Indira Gandhi's initiation of Project Tiger in India in the early 1970s, and conservation programmes were launched in Nepal and Bangladesh. In the following years, with rising tiger and prey populations reported, there was growing optimism about the tiger's future, which led to complacency.

It all changed in the 1990s with the revelation that many of Ranthambhore's world-famous tigers had been poached for bones. It quickly became clear that poaching was widespread, particularly in northern and central India. In fact, suspicion that tiger bones had become the poachers' target had arisen in 1986 when some tigers disappeared from Dudhwa, but it was not followed up. It turned out that tiger bones were in demand in China for medicines for rheumatic diseases. China's bone stocks, based on the 3,000 South China tigers

known to have been killed in the early 1950s as pests, had presumably run out; China needed bones from other tiger countries.

Tigers were poached in Myanmar, Vietnam, Cambodia and Thailand, but India was the richest target. Nepal, conveniently lodged between India and Chinese-ruled Tibet, had become home to thousands of Tibetan refugees, many of who still had links with their homeland and for whom there was money in the trade. The first major seizure of tiger bones (400 kg) in Delhi in 1993 revealed the Tibetan connection. It led to a call by the Dalai Lama to people to remember their Buddhist faith and to refrain from killing and trading tigers.

It made no difference, and to this day Tibetans are playing a key role in the illegal trade, as arrests in India and Nepal have shown when contraband tiger (and leopard, as well as other species) parts have been seized. The seizures probably represent only 10 per cent of the animal parts being moved out of India.



A tiger skin being sun dried in Lohit district, Arunachal Pradesh. The number of unreported cases of poaching of tigers for bone and skin is on the rise.

Photo: Anwaruddin Choudhury

Emphasis on the bone trade and on tigers has overshadowed the high roll on leopards; most seizures include six or more times as many leopard skins as tiger. And it is this skin trade that has become another major threat to both big cats. From December 2002 through 2003, hundreds of skins have been seized; truckloads heading for Nepal or for north-east India. Tanning factories have been found in UP towns and in Delhi, where the skins were treated and marked as for legitimate trade.

During the recent Conference of the Parties of the Convention on International Trade in Endangered Species (CITES) in Bangkok in October 2004, the London-based Environmental Investigation Agency (EIA) released a frightening report on the skin trade. It recalls that in October 2003, Chinese customs officers stopped a truck heading for Lhasa with the skins of 31 tigers, 581 leopards and 778 otters, which had come from Delhi. It lists 29 seizures from July 1999 to July 2004 in which nearly 1,200 leopard skins and 80 tiger skins, as well as about 20,000 tiger claws were recovered. Most seizures were in various parts of India, with four in Nepal, and five in China.

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The report said: "Traders in Tibet have told the EIA that they sell tiger and leopard skins to wealthy Chinese and (visiting) Europeans, while skin is also used locally as trim on traditional costumes".

EIA applauds the efforts of the authorities to fight the trade, but says much more needs to be done, and, above all, there needs to be political will to conserve India's wildlife heritage. The illegal trade is well organised, as shown by the arrest of tribals from Madhya Pradesh with poaching equipment in Nagarhole national park in Karnataka, who had clearly been commissioned by traders.

The trade in tiger and leopard parts is clearly growing and further threatening the future of the big cats, especially the tiger, because there is, probably, less than one half as many as there are leopards. We do not know exactly how many tigers there are in India. Official statistics from tiger pugmark censuses put the number at 3,600 in 2001-02. But eminent tiger experts, such as Valmik Thapar and P.K. Sen (former Director of Project Tiger) say they believe there are many fewer, perhaps only 2,000 – about the same as when Project Tiger was launched in 1973.

The 2001 census in India recorded a human population of 1,028,610,328 (just over one billion) – that is nearly twice as many people as in 1971, just before Project Tiger was launched. That means that there is a great deal more pressure on protected areas and other wild habitats for living space and development. The tiger population is now fragmented like an archipelago and, according to the official figures; only Corbett, Kanha and the Sundarban out of the 27 Project Tiger reserves have populations estimated at over 100. Nine reserves have 50-100 tigers; the rest between 4 (Dampah in Mizoram) and 50.

Ranthambhore's tigers have recovered since the early 1990s poaching disaster, when the population was said to have fallen below 20 – there are now 35. Such low numbers pose

genetic problems, which may arise from interbreeding. In the case of Ranthambhore, it must be remembered that when it was declared a tiger reserve in 1973, the number of tigers was in the low teens, and so the population has suffered two "bottlenecks". There have been no apparent deleterious effects from inbreeding, such as lower reproduction, but Dr Stephen Mills, a British tiger expert with a wide knowledge of India, believes there has been an effect. In his recent book, *"Tigers"* (BBC 2004) he noted that natural aggression between tigers seemed to have diminished, and the reason could be that they are now closely related and recognise each other as extended family members.

Conservationists see the linking of reserves by corridors through which tigers could migrate and spread their genes as a way to mitigate the genetic problem. But establishing corridors is very difficult. Much of the land between reserves has been settled and developed so that there is a barrier that would prevent tiger migration. Even where forest corridors still exist, they could not be closed to people, most of who fear tigers.

The social organisation of tigers is an obstacle to the translocation of one or two tigers from one reserve to another to spread genes. Tigers do not welcome strangers, and translocation could result in-fighting causing death and disruption, leading to a waste of investment in an expensive operation.

It is unfortunate for wildlife that many Indian reserves contain rich mineral reserves so that there is great pressure for mining, and illegal operations. There is also a growing interest by central and state governments in promoting "eco-tourism" centres or theme parks at popular reserves. The Indian Sundarban appears likely to be invaded by a massive centre proposed by the Sahara group, apparently backed by the West Bengal government. A theme park has been

proposed with water sports at the lake in the centre of the Pench Madhya Pradesh and Pench Maharashtra tiger reserves, where fishing was stopped because it was considered a threat. Ranthambhore's director faces heavy pressure from tourist organisations to increase the already excessive number of vehicles in its small area.

I have not painted a hopeful picture of the tiger's predicament. It is probable that tigers will vanish from some of the existing reserves, in which their numbers are low. Given their healthy numbers, Corbett, Kanha and the Sundarban have good prospects. In the case of the Sundarban, which is divided between India and Bangladesh, tiger population censuses in 2004 provided an estimate of nearly 700 (274 in India and 419 in Bangladesh). Such figures are viewed by specialists as grossly exaggerated. A pilot phototrap survey in the Indian Sundarban (2,585 km²) led to speculation that there might be fewer than 100 tigers. In Bangladesh, the protected area for tigers covers 1,400 km², but with somewhat better habitat than in India, there could be more tigers. Dr John Seidensticker, a leading tiger expert, with experience in the Sundarban, has made a rough calculation, based on tiger density in the rich Chitwan reserve in Nepal, that the whole area could support only a maximum of 250 mature tigers. That would make it the second largest surviving tiger sub-population, after the Russian Far East, which has about 400 mature tigers.

The future of the tiger looks bleak, but it can be improved with serious help. The tiger itself has shown that it can recover quickly from low numbers because it is highly reproductive. To give it that opportunity it is essential that

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governments in India, Nepal, Bhutan and Bangladesh, and all authorities involved, demonstrate political will and take effective action to save the tiger. It is part of their natural heritage, India's National Animal, and a key part of the natural environment and its wildlife.

The political will must aim at:

1. **Protecting the tiger from poaching and illegal killing.**

This can only be achieved by strengthening anti-poaching and anti-illegal trade operations, and ensuring that the law is fully enforced by the courts. Where necessary, the law needs to be strengthened.

2. **Protecting the habitat of the tiger.**

Erosion of protected areas by illegal business, such as mining, and by illegal settlements must be halted.

3. **Protecting the wild species associated with the tiger, especially those that are its prey.**

The natural wildlife of protected areas must have the same support as that for the tiger.

The natural world, which is the basis of all life, is suffering from human maltreatment almost everywhere. India, Nepal, Bhutan and Bangladesh have achieved a great deal in wildlife conservation in recent times, at considerable expense. But more funding is needed. The international community is committed to the cause; it has provided funds and equipment through governments and non-governmental organisations, and is willing to provide more, if it is assured that the authorities directly involved are actively dedicated to saving the tiger and its world. □

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— PETER JACKSON

From the diary of a forest officer : with elephants and Verrier Elwin in Kameng

KORUNA DATTA CHOUDHURY*

It was in January 1971 while I was working for the reclamation work for the resettlement of the ex-servicemen at Seijosa in undivided Kameng Frontier Division of the North East Frontier Agency [NEFA] (now Arunachal Pradesh). It was in the interest of the area that the retired defence personnel were settled in NEFA, for development and security purpose. The area selected was north of Assam – NEFA boundary and for this, natural virgin forests were to be cleared for their homestead and agricultural field. Naturally these were habitat for wild animals including the elephant.

As the selected army personnels were of Punjab origin they were very fond of cultivating maize, sugarcane, etc., which were very lustrous to attract elephants. Hence they were very much disturbed by this animal. In order to give them relief, the government decided to kill the rogues under Elephant Control Act prevalent at that time. Since I was from the forest service I was asked to find out the actual rogues and arrange for their proclamation.

I could find out two animals, one of which was appeared to be a very big *makehna* of recorded height and another was a full-grown tusker. The *makehna* was shot by an expert *shikari*, ex-Major Harcharan Sing who was a tea planter of nearby Dikorai tea garden. I had estimated it to be of 10 feet and eight inches in height but after killing it was actually found to be 10 feet and 10 inches, the biggest wild elephant I have come across. It was shot down in the later part of December 1970 during my absence from the H.Q. In general, I used to accompany ex-Major Harcharan Sing in his quest for the elephant by trekking.

The turn for the tusker as mentioned above came in the early part of January 1971. Information was received about its appearance near the ex-servicemen colony. We had started to track it out in the midday. He was moving inside thick bamboo forest with absolute silence. The wind was in his favour and hence he could easily apprehend our movement. We found his fresh footmarks and dung but unable to trace him although he was very near to us. Such a big body was moving in the thick bamboo forest over the undulating ground but maintained absolute silence was something to remember. The circumstance was so critical that both the elephants and we were moving in the close proximity and anything might have happened had we faced each other.

We had wasted about three long hours in search of it. It was becoming dusk and we were thinking to retreat. All of a sudden the wind direction changed and we heard the breaking of bamboo very near to us. He was spotted and a round of bullet was shot at him.



From up hills he was running down to the ravines and we followed him. During the course of this, suddenly I found myself in between the elephant and *shikari*. At this Sri Sing was perplexed as to what to do. Instantaneously I noticed a leaning bamboo in front of me with the help of which I climbed up and a bullet was shot to the elephant below me. It immediately fell down. It was a beautiful noble animal with the magnificent tusk. It was for the excitement of the moment that my vocal cord was affected and I could not talk soundly for about 4/5 days.

* * *

When I began my service career in NEFA on the 17th day of April 1957, I was posted at Bomdila, the district Headquarters of the then Kameng Frontier Division. Naturally I was very happy on obtaining my first posting at a district H.Q. as a Forest Ranger. I was ignorant about the geography of the area and hence my dream was shattered when I learnt that I had to undertake 3 days road march! But then I could not think of blessings waiting for me where I met many distinguished personalities. Among them was Dr. Verrier Elwin, the renowned anthropologist, Adviser to the government and a close associate of Jawaharlal Nehru, the then Prime Minister of India. Shortly after I had joined at Bomdila, I had to accompany him during his tour of Kameng Frontier Division for indentifying the herbs and plants, which were used by the local people. I was with him for about 10 days during that tour.

While returning from the field with Dr Elwin, we crossed Perila (Piri-la) peak (11,000 ft above mean sea level) on one early morning of October 1957. We came across fresh droppings of wild elephants (smoke

was still coming out) and heard the sound of breaking of bamboos. Dr. Elwin prevented me from looking for the elephants and asked me to follow him.

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I was unaware that we came across a landmark record of elephants at 11,000 ft. elevation. According to other records, in the bamboo forests of Burma (Myanmar), it climbs up to a height of 10,000 ft (3050 m) while in Sikkim, tracks were seen in the snow at 12,000 ft (3660 m) above mean sea level (vide H.J.S. Lwes, *Journal of the Bombay Natural History Society*, Vol. XXIV, No. 2). Capt. A. L. M. Molesworth (in *Journal of the Bombay Natural History Society*, Vol. XXIII, No. 2) mentioned of elephants at 10,200 ft in Bhutan-Tibet boundary. □

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Conserving the pheasants and partridges of NE India

PHILIP MCGOWAN*

North-east (NE) India is an exceptionally important part of the world for pheasants and partridges. Together with adjacent parts of south-west China and western Myanmar its high mountains, deep valleys and plains are home to a diverse array of habitats, which in turn are home to a great variety of bird species. The recent description of a new subspecies of a bird as big as Sclater's monal *Lophophorus sclateri*, which can weigh up to 2.5 kg and measure more than 65cm from tip to tail suggests that new biological riches must remain to be discovered. However, what we already know about the pheasants and partridges (Phasianidae) leaves no room for doubt of the importance of this corner of India.

Starting with the key species, NE India is of worldwide significance for no fewer than six globally threatened species, which are all listed as Vulnerable on the IUCN Red List. A seventh species is the Endangered green peafowl *Pavo muticus*, but it is unclear at present how important the region is for the world population. The most enigmatic of these six species is the Manipur bush-quail *Perdica manipurensis*, which has not been recorded reliably since 1932, although there was an unconfirmed report from Dihru-Saikhowa Wildlife Sanctuary in March 1998. Also down in the grasslands of the plains and low hills is the swamp francolin *Francolinus gularis*, which is threatened throughout its range by drainage of its wet grassland habitat, and probably increasingly by agricultural practices degrading its habitat and disrupting breeding attempts.

Above these species lie the hill forests that contain three threatened species: chestnut-breasted hill-partridge *Arborophila mandelli*, Blyth's tragopan *Tragopan blythii* and, Hume's

pheasant *Symaticus humiae*. Above these again Sclater's monal inhabits the high forest and sub-alpine scrub around and above the treeline. It must be said that our knowledge of the distributions of these species has taken great steps forward in recent years through the dedicated efforts of a few key Indian ornithologists, but much remains to be unravelled. Two areas of future investigation are especially important. The first is obviously to rediscover the Manipur bush-quail. No sightings for more than 70 years mean that finding this species has to be one of NE India's highest conservation priorities, as it would confirm that the species has not gone extinct in the intervening period.

The second important area of investigation is to determine which areas are the most significant for the long-term survival of these species, especially those that are threatened.

This job is partly done, as we know that some of the existing protected areas are sited where these species occur. However, what is less clear is whether, taking the North-east in



Blyth's Tragopan is a rare pheasant of NE India
Photo: Anwaruddin Choudhury

its entirety, the protected area network offers the most efficient way of conserving these species, their habitats and the species that they live alongside. Therefore, a series of surveys, guided by a co-ordinated GIS analysis of pheasant and partridge knowledge, the distribution of habitats and topography is badly needed. Planned well, the GIS analysis would identify current key areas and gaps in coverage and knowledge and then predict where surveys would be most useful. The results from the surveys would then help to refine the identification of a suite of key areas that could then be subject to more sustained actions, such as formal protection or the development of community programmes designed to ensure the use of forest resources is sustainable, both for people and for wild species.

In order to develop such community-orientated solutions, we must tackle the second substantial area of current ignorance, namely the way in which current pressures are affecting populations of species. It is well known that habitat degradation and loss lead to populations becoming small and fragmented, but has this reached critical stages in NE India? For example, are populations of Blyth's tragopan becoming too small and isolated from one another to survive in the long-term? Some populations have almost certainly become extinct, but we need to know what the critical factors are: for example, is there a forest size below which there is simply no point trying to conserve large ground birds such as pheasants.

In the last few years, we have become so aware of the scale of hunting of wild species for a variety of purposes: to prevent starvation, to provide protein diversity, for subsistence trade, for cultural reasons etc. Whilst much of the international focus has centred on large mammals in African forests, it is arguable that it is more likely that

hunting will lead to species extinctions in Asia. This is because the densities of people are greater and the habitat fragmentation more advanced, both of which mean that there are fewer patches of habitat that humans are not travelling to in order to hunt. Recent surveys in some NE India forests have suggested that the 'empty forest' syndrome may be widespread as a result of ever increasing human incursions into forests.

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This leads us to probably the most urgent requirement in NE India at the present time and that is a detailed understanding of why people hunt and the impact that it has on populations of wild species. If people need to hunt for subsistence or it has been a part of their culture for many generations, then balances need to be found so that the species survive. From the human perspective, it is also surely important to ensure that the species being hunted do not become extinct. If they do then subsistence needs will not be met and local traditions that rely on hunting or pheasant feathers for example will die.

Conservationists often demand urgent action and feel that research does not deliver such action quickly enough. However, if there was a concerted effort to put in place the activities outlined above in the next 12-24 months, then we could be building long-term and workable solutions within five years. The challenge now is to put together a consortium that has the motivation and ability to make this happen. □

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Photo : Anwaruddin Choudhury



Anne Wright, Chairperson of The Rhino Foundation handing over wireless sets at Pabitora sanctuary.

Photo : Anwaruddin Choudhury



An anti-poaching camp constructed by The Rhino Foundation at Rongagorah, Orang national park.

Photo : Prag TV



Mark Shand (left) releasing a book on birds of Kaziranga authored by the honorary CE (right) in presence of Pradyut Bordoloi, minister for Environment and Forest, Assam (centre)



Top. A gaur in Manas national park, Baksa district; September 6, 2004.

Bottom. Forest Guards patrol Orang national park with motorcycles donated by The Rhino Foundation.

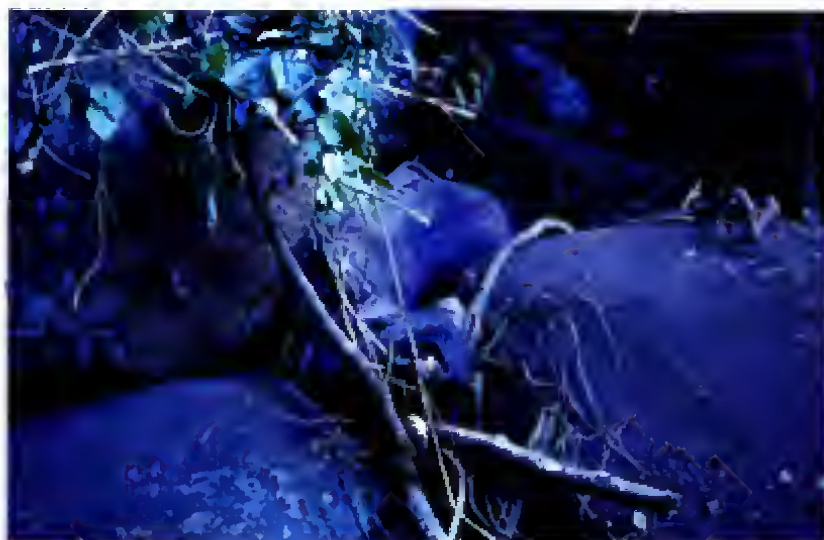


Photo : Anwaruddin Choudhury



Photo : Anwaruddin Choudhury



Photo : Imran Mazumdar

Top. A juvenile rhino died after falling between rocks in Raja Mayong area of Pabitora sanctuary.

Middle. New record! Openbill Storks nesting in bamboos at Bhabanipur, Barpeta district. -

Bottom. Leaf deer skull, Nagaland



Photo : Rupin Dang/Wilderness Films

Photo : Anwaruddin Choudhury

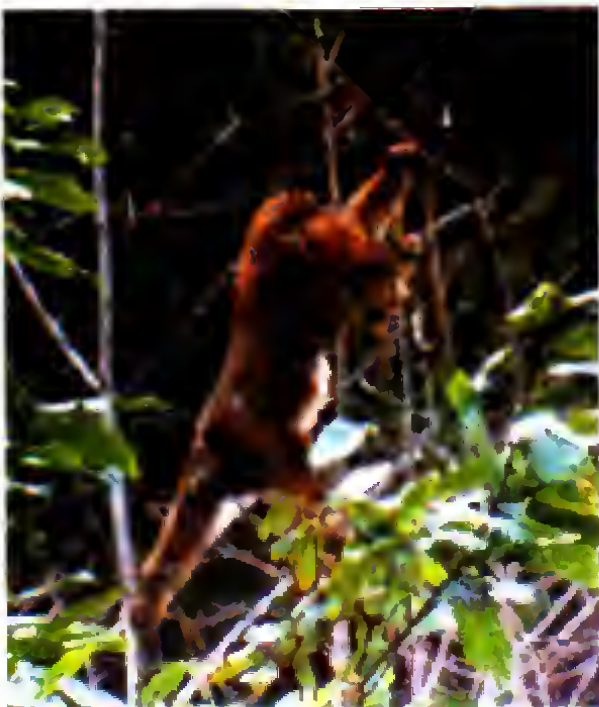


Photo : Suresh Kumar

Mystery macaques of Arunachal Pradesh

Top. a 'first' male near Brokser, Tawang district; *bottom left.* a 'second' male near Lamacamp, West Kameng district; *bottom right.* skin of an adult male at Taksing, Upper Subansiri district

The story of The Rhino Foundation

ANNE WRIGHT*

It was a warm afternoon in the summer of 1994 when Samantak Das and I were driving past the Hathikuli Tea Garden bordering Kaziranga national park. As Trustee of WWF-India, I had come to meet various NGO's. We called on the Director of the national park. Rumors of heavy poaching of rhino were the talk of the area, but it was not freely discussed and we had the feeling that the situation was not quite in control. A kind sponsor had donated a cash reward for several young forest guards, who had risked their lives in catching armed poachers. It was a great joy to be able to distribute the prizes, although so inadequate, to such brave young men.

On driving past Hathikuli garden I don't know what second sense made us stop to enquire if there was any rhino poaching in that area. Oh yes, said an innocent tea plucker, there were dead rhinos inside this garden over there. We slid our vehicle through a gate and as directed drove on through the garden towards the hills. An overpowering stench of death soon drove us to the spot where two massive rhinos lay sprawled in the tea bushes, their horns torn from their noses. A small and bedraggled man claiming to be a Forest Guard appeared and said on enquiry that armed men had come in the night and shot the rhinos. Cowering in his small hut on the boundary of the tea garden, unarmed and frightened, he could only emerge when the raiders had gone.

Taking pictures of this horrific scene, we set

off to meet the tea garden Manager. These were the days of kidnapping and insurgency and the Manager looked askance at my bearded Project Officer. He claimed he knew nothing about poached rhino on his premises, and argued with our view that as a citizen of India he must help to protect such a valuable and endangered species. Incensed by his attitude, I was to meet his boss, Mr. Krishna Kumar, at a cocktail party in Calcutta. To my great relief, he reacted strongly and positively. We became good friends and after several meetings, he decided to fund a special NGO to protect the rhinoceros. He personally collected his many seniormost friends in the tea business to join the Board and contribute funds. With his company's help, the deeds for the Rhino Foundation were drawn up.

Thanks to his vision and his dedication to wildlife, our Foundation was registered. As luck would have it, Dr. Anwaruddin Choudhury, recommended to the Board by Mr. Ranjit Barthakur, was free to get a two-year Sabbatical from the Government of Assam to join as the first Project Director (designated as Chief Executive).

At that time, we were lucky enough to be able to raise funds for much needed projects to help the Forest Department. The Rhino Foundation were requested to supply rain-coats, jackets, torches and shoes which were supplied at cost by Batas. The Foundation went on to raise funds for wireless systems in Orang and Pabitora, and later through the Fauna and Flora International, funds were raised for motorcycles. We have an ongoing project to treat domestic elephants in need of veterinary medication. These are the wonderful animals on which the Forest Guards depend to protect the rhino from poachers who take advantage of the

An overpowering stench of death soon drove us to the spot where two massive rhinos lay sprawled in the tea bushes, their horns torn from their noses.

The miracle of Kaziranga can be attributed, however to the dedication of the people of Assam, and a number of enlightened Forest Ministers. Many NGO's have rallied to the cause but ultimately it is a Government success story, which should stand as a shining example to the rest of India.

dense, tall grasses.

The same elephants give untold joy to visitors as they carry them into the Park, for the great experience of Kaziranga.

Dr. Anwaruddin Choudhury has dedicated his life apart from his work to the cause of protecting wildlife and the forest. The Rhino Foundation has worked behind the scenes to influence the Government on many issues ranging from permitting "sleeping policemen"

to or speed breakers, to slow down trucks on the adjoining highway, to efforts to expand and reclaim forest land to increase the size of this small but beautiful Sanctuary. Although it is good news that there are additions to the Park, it is imperative that the encroachments (in addition areas) should be removed.

The miracle of Kaziranga can be attributed, however to the dedication of the people of Assam, and a number of enlightened Forest Ministers. Many NGO's have rallied to the cause but ultimately it is a Government success story, which should stand as a shining example to the rest of India. The reward is the influx of foreign and local tourists. There is now worldwide appreciation of this great effort to protect the rhino and its very special homeland. □

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NOTES

Elephant management of Assam: an organic culture

KUSHAL KONWAR SARMA*

India's north east, particularly the state of Assam, is one of the last bastions of the Asian elephant, where, about 5000 of these magnificent beasts still roam the wildernesses of tropical forests and grasslands. But what is perhaps even more heartening is that no less than 1500 of their brethren continue to thrive in captivity under the benign care of their human masters who have come to regard them as ones belonging

to their own families. This is in no small measure a legacy of a rich tradition of keeping elephants in captivity by the inhabitants of this region that goes back to centuries. This tradition is well documented in history, particularly in a number of treatises on elephants dating back to ancient as well as medieval times. This explicitly illustrates the practice and tradition of keeping elephants in captivity by the region's royalty and elite down the ages.

Certain ethnic tribes of this region, namely the *Misings*, *Merans*, *Mataks*, and *Singphos* of eastern Assam and the *Rabhas* of south western areas of the state are the common

tribal people who have been keeping elephants in a very interesting organic kind of management practice that need to be studied for documenting and illustrating this venerable and uniquely subaltern culture and bringing their efforts and experiences to the attention of the mainstream discourse on the management of Asian elephants in captivity.

From the ancient times up to the colonial occupation of Assam, the elephant played an important role in war, work and play. And it is evident from the historic source materials and even oral tradition of the dominant communities that this was mostly a privilege of the royalty and the elite. With the British annexation of Assam, this privilege was usurped by the new native feudal elite and their colonial masters who turned the elephant into an indispensable instrument in the enterprise of colonial exploitation of native resources. And while momentous post-colonial political, economic and technological changes brought about a rapid decline in this tradition, a substantial population of elephants in captivity continued to thrive. Primarily engaged in the regions timber industry, keeping them still remained a preserve of the rich and elite. The past decade then brought forth some new and acute challenges that have severely eroded not only this seemingly exclusive preserve of the rich but also even the riches of quite a few.

Due to unsustainable over exploitation of its natural resources, the forest cover of Assam was found to have come down quite alarmingly from a minimum recommended 33 per cent of the geographical area. The recommended minimum forest cover for the plain areas of the rest of the country is 22 per cent, which is set at a higher level in this geographically fragile area like Assam. Greatly concerned at this, the Supreme Court of India had to ban all logging related activities so as to allow the forest cover some

time to regenerate. But as fallout of the ban, though welcome in the general context, the majority of the captive elephants of the region have become jobless and a big burden on the owners. Unable to bear the burden, the elephant keeping elites started to sell off their elephants. As a result of this exodus for example, the captive elephant population of Kerala suddenly swelled from 350 in 1996 to about 850 at present, from a meager 70 in 1995 to over 300 in Nepal.

In marked contrast however, the ethnic tribes mentioned earlier were never the elite nor did they ever possess the substantial fortunes their elite counterparts had, which largely enabled the later to maintain the means and retinue to keep elephants in captivity. Although the dominant tradition perhaps largely ignored them and certainly failed to illustrate their experiences, their way of elephant keeping has evolved into a more organic and symbiotic human-elephant relationship, which has a far better chance of surviving the new economic and environmental challenges of keeping elephants in captivity. This is evident from the remarkable rate of reproduction and general well being of their elephants.

Steps need to be taken towards a more systematic and comprehensive study of this organic culture that is a repository of knowledge in management of Asian elephants in captivity. There is also an urgent need to document, understand, evaluate, adopt and institutionalise this repository of knowledge in the modern discourse of management of Asian elephants in captivity before it succumbs to the pressures of changing economic priorities of the modern age. □

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Notable bird records from Kakojan reserve forest

MANOJ V. NAIR*

I was stationed in DoomDooma Forest Division, Tinsukia district, upper Assam, for a period of nine months from August 2003 to April 2004, as part of my official engagements. This gave me ample opportunity to explore the less-known reserve forests of the region and find out more about their denizens, especially birds. Among the 12 patches of forests that I visited, Kakojan (23.46 km²) was by far the most promising in terms of avifauna. My checklist at the end of the period (46 trips with a cumulative total of c. 90 hours of birding) stood at 119 species, which is a good number given the fact that no intensive searches for any particular species was carried out and that most of the observations were carried out well into and during the day, thus missing the peak activity time during dawn.

Two Critically Endangered species, **White-rumped Vulture** *Gyps bengalensis*, **Slender-billed Vulture** *G. tenuirostris*, and two Near Threatened species, **Grey-headed Fish Eagle** *Ichthyophaga ichthyaeus*, and **Brown Hornbill** *Anorrhinus tickelli* were sighted.

Some other notable observations were:

Goliath Heron *Ardea goliath*. Two sightings in December, at the edge of Dibru river beyond Duarmara.

White-hooded Babbler *Gampsorhynchus rufinus*. A single sighting of a flock of c. 10 birds in bamboo jungle.

Emerald Cuckoo *Chrysococcyx maculatus*. Seen often in summer. No calls heard.

Violet Cuckoo *C. xanthorhynchus*. A single sighting of a male in April. It was chased by a pair of Little Spiderhunters (brood parasite?)

White-browed Yuhina *Yuhina xantholeuca*. Three sightings, amidst bird - waves / mixed

flock hunting parties with tits, minivets, leaf warblers and white-eyes.

Among other species recorded were, **Jerdon's Baza** *Aviceda jerdoni*, **Bay Woodpecker** *Bhythipicus pyrrhosis*, **Spot-bellied Eagle Owl** *Bubo nipalensis*, **Hair-crested Drongo** *Dicrurus hottentotus*, **Spot-winged Starling** *Sargolossa spiloptera*, **Long-tailed Broadbill** *Psarisomus dalhousiae*, **Brown-breasted Flycatcher** *Muscicopa muttui* and **Plaintive Cuckoo** *Cacomantis merulinus*.

It has also to be mentioned that this patch is known to support the extremely rare **White-winged Wood Duck** *Cairina scutulata*, and the enigmatic **Masked Finfoot** *Heliopais personata* (A.Choudhury, pers.comm.), though I did not see them. Thus, though small in area, Kakojan has immense potential as an avifaunal habitat and has to be conserved. Attempts to de-reserve small chunks for oil explorations is sure to spell doom to such last remaining and fragmented pockets of the once contiguous and extensive lowland wet evergreen forests of the 'Assam Valley'. □

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THE MYSTERY MACAQUES OF ARUNACHAL PRADESH

ANWARUDDIN CHOUDHURY

An interesting primate belonging to genus *Macaca* was sighted in western Arunachal Pradesh in 1997. Thereafter the macaques were sighted on more occasions. Superficially similar to the Assamese macaques *Macaca assamensis*, this new-look macaque was tentatively identified as Père David's macaque *Macaca thibetana*. Also known as Tibetan macaque, it was known from east-central China only. The only difference with the macaques in Arunachal Pradesh is the relatively longer tail in latter. Since there is large geographical range extending from east-central China to western Arunachal Pradesh, it could probably be a new subspecies of *thibetana*. The known subspecies of *assamensis* are also differentiated in the field by their relative tail-length. A recent move to describe a new species taking photos of sub-adult animals as holotypes and paratypes is perhaps not correct as nobody would be able to examine these type specimens.

Key words: Assamese macaque, *Macaca assamensis*, Père David's macaque, *Macaca thibetana*, Tibetan macaque, Arunachal Pradesh

Introduction

The genus *Macaca* is represented in north eastern India by four species, *arctoides*, *assamensis*, *mulatta* and *nemestrina* (Choudhury 1988, 2001). All these species also occur in Arunachal Pradesh (Choudhury 2003). The Assamese macaque is represented by both the known subspecies, *assamensis* and *pelops*. All these macaques have interesting tails, which are different from each other in length, shape and carriage. Fooden (1982) had reviewed *assamensis*. Useful information is also found in Corbet and Hill (1992), Ellerman and Morrison Scott (1951) and Pocock (1939, 1941).

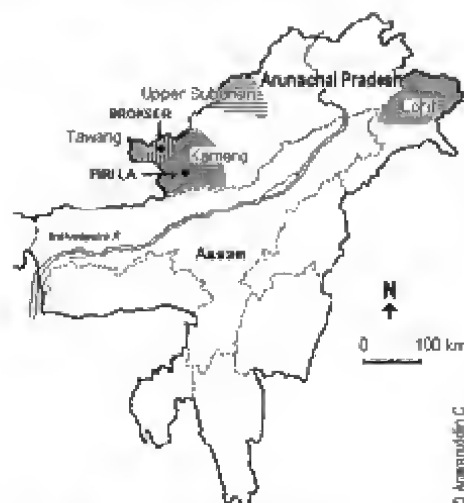
A new look macaque troupe was spotted in western Arunachal Pradesh in 1997, which was tentatively identified as Père David's or Tibetan macaque *M. thibetana*. Subsequently more troupes were sighted (Choudhury 1998, 2000). *M. thibetana* was also reviewed by Fooden (1983). Recently attempts have been made to claim fresh discovery and also to describe a new species (Mishra *et al.* 2004; website of NCF).

In this paper I report the original discovery, results of later surveys and discuss about the recent claims as *sp. nova*.

Study areas and methods

The study area covered western Arunachal Pradesh, especially the districts of East and West Kameng, and Tawang (26°55'–27°50'N, 91°35'–93°20'E). These mountainous districts cover various ranges of the Himalaya, with elevations ranging from 100 m to more than 7000 m above mean sea level (asl); however, the study was confined to below 4200 m.

We surveyed the forests around Shergaon,



Map showing areas mentioned in the text

Tenzinggang, Thungri, Nafra and Mandla Phudung in West Kameng and Zemithang, Nelya, Lumpo, T-gompha, Gorsam gompha, Lumla, Tawang, Mukto, Jang, Geshela, Brokser, New Meling, Thingbu and Magu between 1998 and 2000. In 2001, Chayangtajo, Bameng and Seppa areas were surveyed; however, since 1989 parts of Changlang, Lohit, East Siang, West Siang and Subansiri and Dibang valleys were also covered. During field study, the presence or absence of macaques was ascertained by direct observation, indirect evidence like call, and by interviewing local Forest Department staff, villagers and hunters with the help of coloured visuals. For direct observation, foot-transects along existing and newly cut paths and trails, vehicle-transects along roads and motorable tracks were made.

Results

NEW-LOOK MACAQUE: Starting with November 1997, such macaques were sighted in Piri-la range of West Kameng district, near Jang, between Jang and Thingbu, between Tawang and Lumla, and enroute Geshela in Tawang district (Choudhury 2000). A 'second' male was photographed in West Kameng in November 1997 (see plate). A fine adult ('first' or alpha male) was photographed near Brokser in Tawang in October 1998 (by Rupin Dang; see plate). During survey, similar macaques were reported from near Thungri and Mandla Phudung in West Kameng, near Chayangtajo and Lada in East Kameng, and above Zemithang, near Lumpo, between Magu and Thingbu in Tawang district.

The elevation of these sites ranged from 2200 to 2950 m asl. The habitat was temperate broadleaf and also broadleaf-conifer mixed forests. Mostly seen arboreal in West Kameng while in Tawang, mostly on the ground. Extremely shy in former but less so in latter.

These macaques had slightly different ('heavy') vocalisation. Local villagers, especially who regularly visit forest also stated of

presence of at least two species of macaques, of which one has relatively shorter tail and is confined to higher mountains (the rhesus macaque is not found in these areas).

Three groups were located in the Piri-la range, of which the size of two could be ascertained, 21 and >15. Near Geshela, a group had >13 animals at 2950 m asl.

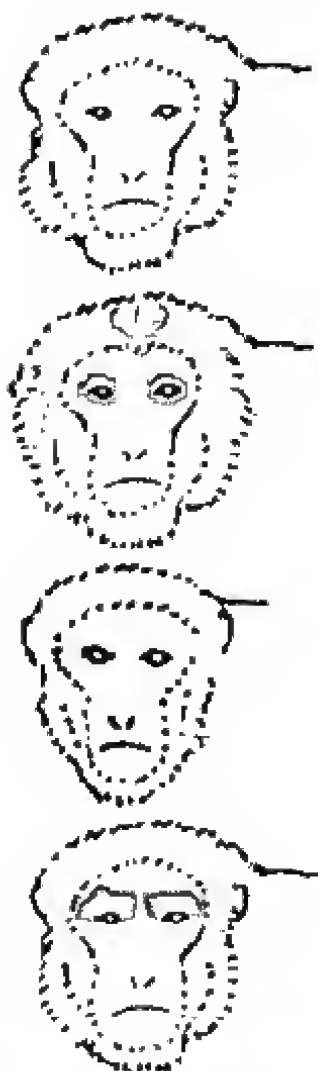
ASSAMESE MACAQUE: Sighted more frequently in West Kameng and Tawang districts than in East Kameng (due to heavy poaching). The localities where observed were Tipi, Sessa (in Scissa Orchid sanctuary), between Sessa and Tipi (part of Eaglenest wildlife sanctuary) below Lamacamp, near Dirang, Tenzinggang and near Shergaon in West Kameng; Gorsam gompha in Tawang, and near Seppa in East Kameng.

The elevation in all the areas ranged from 100 to 2400 m asl. The habitat ranged from tropical evergreen, subtropical broadleaf and temperate broadleaf forests; also in broadleaf-conifer mixed forests. They were arboreal as well as on the ground.

RHESUS MACAQUE: Not seen in Tawang district. In East Kameng, seen in Pakhui (Pakke) wildlife sanctuary, especially near Seijosa. In West Kameng, encountered in the foothills in Doimara and Amortola reserve forests. The elevation of sighting localities ranged from 100 to 200 m asl. The habitat type was tropical evergreen and semi-evergreen forests.

MORPHOLOGICAL DESCRIPTION OF THE NEW-LOOK MACAQUE:

'First' male: Dark brown (chocolate-brown in some) dorsally, lighter ventrally. Shoulder and head often look brighter rufous/olive-brown. Tail short and thick. Buff coloured side-whiskers and beard. Facial skin darker than Assamese macaques. A light yellowish patch on the crown with some dark hairs at the centre (visible on the photo by R. Dang; see plate). Range of tail length unknown but certainly variable (see plate; photo by S.Kumar).



New macaque faces: 'first' male in Piri-la range (top); 'first' male in Broksar (second from top); 'second' male in Piri-la range (third from top); some 'first' male in Lohit district (bottom).

Some specimens in Lohit district have conspicuous white above their eyes, which is faintly visible but around the eyes in the macaques of western Arunachal Pradesh giving a spectacled appearance.

'Second' male: Dark brown (less dark than the 'first' male) dorsally, lighter ventrally. Tail very short and not thick (see plate). Buff coloured side-whiskers present; beard thinner than 'first' male. In both 'first' and 'second' male, the ears are not clearly visible due to

side-whiskers in anterior view.

Adult females: Less dark than males dorsally, lighter ventrally. Tail relatively long. Buff coloured side-whiskers not conspicuous but present on closer observation. Beard not clear. Can be easily confused with Assamese macaques in the field unless observed from close.

Subadult males: Less dark than adult males dorsally, lighter ventrally. Tail relatively thick and long. Buff coloured side-whiskers hardly visible but thin beard conspicuous. Light yellowish patch on the crown visible.

Juveniles: Virtually indistinguishable from Assamese macaques.

Discussion

The first sighting of new-look or mystery macaques was on November 24, 1997 at above 2500 metres height on way to Eaglenest (or Eagle's Nest) pass in West Kameng district of Arunachal Pradesh. I took them to be Assamese macaques. These macaques occur from floodplains; however, they are more numerous in the high mountains where they are the only macaque in most parts on the north of the Brahmaputra River. But suddenly a large male caught my attention, which had very short tail, much shorter than any Assamese macaque, and had buff coloured beard-like hairs. I was intrigued.

Subsequently, I had tentatively identified the species as Père David's or Tibetan macaque (also known as Chinese stump-tailed macaque) (Choudhury 1998, 2000, 2002). These large monkeys are closely related to the commoner Assamese macaques with some variations. I made many trips to the Piri-la range but the macaques remained elusive most of the time or simply provided an occasional glimpse.

While moving in dense bamboo and misty forest, the 'first' male looked like a small 'bear' on the move in Piri-la range.

Recently, the same primate has been claimed as a new discovery and even an attempt has been made to describe a new species (website of NCF). The text and plates of present report clearly show that this was not a new discovery but a taxon observed and photographed in 1990s. Moreover attempt to describe a new species on the basis of photograph of live animals in the wild as holotype and paratypes was not a proper move. Nobody would be able to cross-check these type specimens. Moreover, this is not a strange or nearly extinct animal that one needs to rush to describe without following standard procedure. Taking tail length of a few individuals of macaques, which have significant variation in tail length (e.g., in *thibetana* the range is 5.5-8.0 cm; in *pelops*, 28-36 cm while in *assamensis*, 19-25 cm [Fooden 1982, 1983] as the main criteria is probably not proper. Moreover, subadult male ('holotype') has been mentioned as adult (for comparison with full grown adults, see plate).

What were those? I think without a specimen at hand, it may be difficult to confirm – of course I am against killing any just for the sake of identification although it is sometimes necessary for science. I tried to locate pet macaques but all appeared to be *assamensis*. Skins are of little use in differentiating *thibetana* from *assamensis*.

Jack Fooden of the Field Museum of Natural History, Chicago had written a good article on this issue (Fooden 2003). He had analysed the variations among Assamese macaques and had used the field drawings made by me (in Choudhury 2000) as basis. He concluded that the new look macaques are actually nominate subspecies of Assamese macaque, which were actually believed to occur south of the Brahmaputra only (Choudhury 1989, 1997, Fooden 1982). However, it is unlikely that two subspecies could occur in a widely overlapping zone. Moreover, relative shortening of tail length was also attributed to geographical segregation

(Fooden 1988). Colin Peter Groves of the Australian National University, however, feels that it was indeed *thibetana* as the photo in Choudhury (1998) suggested (Groves 2001).

Conclusions

It is intriguing whether the new macaque was *M. thibetana* or an undescribed subspecies of *M. assamensis*, or even a subspecies of the former? It was not *M. assamensis pelops*, which occurs in the area (considering its much shorter tail). If it is of the nominate race, *M. a. assamensis*, because of its relatively shorter tail length than *M. a. pelops*, then it will be more intriguing as two subspecies having overlapping home ranges! Dark facial skin and dorsal colour are also distinct from both these subspecies. With *thibetana*, the main external difference is the tail length (Li 1999) but it is possible that the new taxon could be a new undescribed subspecies of *thibetana* with relatively longer tail (the two subspecies of the Assamese macaque are also morphologically distinguished from each other only by relative tail length). The photos in plate also strongly indicate the same.

These interesting macaques need further study and a fresh review of *M. assamensis* and *thibetana*, at least at subspecific level is necessary. This new location is about 1000 km towards west of the known range of *thibetana*. Because of their closeness to the Assamese macaque, some authorities such as Corbet and Hill (1992) even suggested that it is a subspecies of the former.

Acknowledgements

S. N. Kalita, S. K. Raha (both former CCFs); late R. P. Neog, Yogesh (both former Directors of Namdapha); M.M.S.Negi, M.K.Palit, C.Loma, R.Horo, R. K. Das (all DFOs); P. Sharma, P.Das, A.K.Singh, S. K. Shome (all Rangers); A. K. Ghose, B. C. Dey, T. Hazarika, Moniram Gogoi, Dorji Raptan, Srimanta Tamuli, Ratnesh Rai, Pemba Tamang, and Kancha Tamang (all Forest staff); Emily Chowdhary, Commissioner, Assam; Nur Husain,

Dilip, late Sakul Boro, Babul, Hakeem, Moniram and Bisoy (last six were all drivers); Ratul Talukdar and Faruq of The Rhino Foundation; Nitu Phukan of Eco-camp; Bir Bahadur Gurung, S. Majumder (of GREF), P.Chuppa, Dr P. Dewri of Tawang, Dr Tacho of Sangti, Sonu Sonar of Dirang IB, Lobsan Chander, Darge Tsering, Kuppa, Dorji Nima, Pema Yeshi, Lama Pema, R. Norbu, Gambo Tsering, Abraham, S.Kalita of Sangti, Namge Dorji, Pema Yaoundi, Gajen Tamang, Lei Kandu Thungon, late Ledo Thungon, K. N. Thungon, D. Tamuk, Sitem Borang, Mamata Riba, Tsering Naksong, Tater Hiba, Tape Mosing, Bikul Goswami; and A.K.Goswami of WWF-India. There were innumerable other people who helped me in the field and I thank them all collectively. My thanks too to my parents, wife and other relatives who gave me the benefit of their advice.

Samar Singh, then Secretary General of WWF-India requested me for further surveys with support from them, which enabled me to engage Bablu Dey and Subhash Chanda of Green Heart NGO as Field Assistants.

Special thanks to Delhi-based cinematographer Rupin Dang and Suresh Kumar for their valuable photographs.

References

- Choudhury, A. U. 1988. Priority ratings for conservation of Indian primates. *Oryx* 22:89-94.
- Choudhury, A. U. 1989. Primates of Assam: their distribution, habitat and status. Ph. D. Thesis, Gauhati University, Guwahati. 300pp.
- Choudhury, A. U. 1997. *Checklist of the mammals of Assam*. Revised 2nd edn. Gibbon Books & ASTEC, Guwahati. 103pp.
- Choudhury, A. U. 1998. Père David's macaque discovered in India. *The Rhino Foundation for nature in NE India newsletter* 2 (1): 7.
- Choudhury, A. U. 2000. Survey of Père David's macaque in western Arunachal Pradesh. WWF-India NE Regional Office, Guwahati. Final Report to WWF-India, New Delhi. 23pp.
- Choudhury, A.U.2001. Primates in NE India: an overview of their distribution and conservation status. *ENVIS Bull: Wildlife and Protected Areas* 1 (1): 92-101.
- Choudhury, A.U.2002. Survey of primates in West Kameng district, Arunachal Pradesh, India. *ASP Bulletin* 26: 12.
- Choudhury, A.U. 2003. *The mammals of Arunachal Pradesh*. Regency Publications, New Delhi.
- Corbet, G.B. and Hill, J.E. 1992. *The mammals of the Indomalayan Region: a systematic review*. Oxford University Press, Oxford.
- Ellerman, J.R. and Morrison-Scott, T.C.S. 1951. *Checklist of Palaearctic and Indian mammals, 1758 to 1946*. British Museum (natural history) (2nd ed., 1966), London.
- Fooden, J. 1982. Taxonomy and evolution of the sinica group of macaques: 3. Species and subspecies accounts of *Macaca assamensis*. *Fieldiana zoology*. N.s. 10: 1-52.
- Fooden, J. 1983. Taxonomy and evolution of the sinica group of macaques: 4. Species account of *Macaca tibetana*. *Fieldiana zoology*. N.s. 17: 20pp.
- Fooden, J. 1988. Taxonomy and evolution of the sinica group of macaques: 6. Interspecific comparisons and synthesis. *Fieldiana zoology*. N.s. 45:1-44.
- Fooden, J. 2003. Tail length in enigmatic north-east Indian macaques and probable relatives. *J. Bombay nat.Hist.Soc.* 100: 283-290.
- GROVES, C. P. 2001. *Primate taxonomy*. Smithsonian Institution Press, Washington and London.
- Li, J.-H. 1999. *The Tibetan Macaque Society: A Field Study* (in Chinese), Anhui University Press, Hefei.
- Mishra, C., Datta, A. and Madhusudan, M. D. 2004. *The high altitude wildlife of western Arunachal Pradesh: a survey report*. CERC Technical Report No. 8. NCF, ISLT, and WCS (India Program), Mysore.
- Pocock, R. I. 1939, 1941. *The fauna of British India: mammalia. Primates and carnivora*. Taylor and Francis, London.
- Website of NCF (Nature Conservation Foundation), Mysore. <http://www.ncf-india.org>. □

Briefly

Compiled by ANWARUDDIN CHOUDHURY

Leaf deer discovered in Nagaland, north east india

During a recent visit to the mountains of eastern Nagaland bordering Myanmar I got reports of a small deer that resembled the commoner Indian muntjac *Muntiacus muntjak*. After thorough search in different villages in Noklak subdivision of Tuensang district I could locate a skull. After measurements and examination, I could identify it as a leaf deer *M. putaoensis* (see plate). The skull was almost complete except for some minor damages that did not allow measurements of some characteristics. The leaf deer was discovered in northern Myanmar by a team of scientists from Wildlife Conservation Society, New York in 1997. Details are being published elsewhere.

A new historic locality for Sumatran rhinoceros

The Sumatran rhinoceros *Dicerorhinus sumatrensis* once occurred in north east India also; however, since early 20th century, all records were of stray individuals. In Nagaland, there was past reports from Saramati area. While on a visit in February 2004 for an awareness campaign as part of OBC-WildWings Conservation Award, I saw a skull in Noklak, which was reportedly killed around the turn of 20th century from the mountains towards north east near India-Myanmar border. The skull could not be measured as it was fixed quite high, and being old, any attempt to bring it down would have damaged it. This precious specimen, probably the first from Nagaland, should be kept in a secured place to prevent further degradation (may be in Kohima museum).

New northern locality for leaf deer

In March 2004, while on a survey for birds and mammals in Dibang Valley districts

of Arunachal Pradesh, I came across two antlers of the newly described leaf deer *Muntiacus putaoensis*. This has extended their range farther towards west and north; however, the westernmost is Nagaland.

Wildlife history-1

Lieutenant Campbell (probably of Assam Light Infantry) shot two rhinoceroses from elephant-back near Howraghat (in present day Karbi Anglong and Nagaon districts of Assam) on 22 November 1845. Lieutenant was convinced that both were killed by one shot! Tracks of buffaloes were also seen.

A country swarming with wild elephants (area around Semkhor [mentioned as Semkur] in present day North Cachar Hills district of Assam; especially between Dhansiri [mentioned as Dhunseeree] river and Semkhor; 25th November 1845).

(Source: Travels and adventures in the province of Assam by John Butler, 1855, London).

Pigmy hog killed

A critically endangered Pigmy hog *Sus salicinctus* was killed in Koklabari seed farm, Manas national park on June 20, 2004. Early this year two were killed in paddyfield near Daodhara reserve forest towards east of Manas national park [Source: ABSU, Koklabari].

Elephant poached in Baksa

A female elephant was shot dead by a gang of heavily armed poachers near Uttarkuchi in Subankhata reserve forest, Baksa district in around September 30, 2004. The poachers took away its nails, molars and part of trunk. The carcass was located on October 1, 2004. I visited the site on the next day alongwith the Superintendent of Police, Baksa and a party of police comprising

Assam police and CRPF. Efforts are on to nab the poachers (see *photograph* on 4th or back cover).

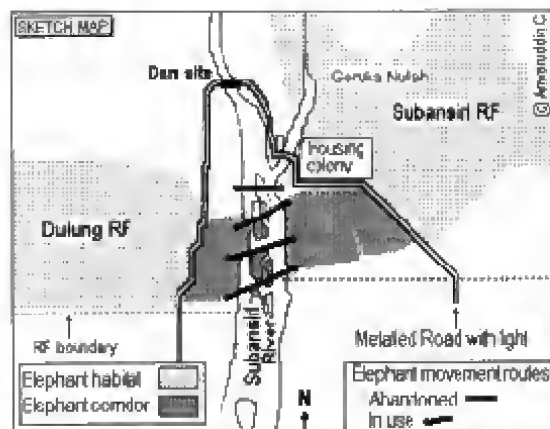
Storks nesting in bamboo - a new record from Bhabanipur heronry

Bhabanipur is a large village in Assam's Barpeta district. The area has become well known in recent times for its large heronry of Openbill Storks or Asian Openbills *Anastomus asiaticus*. This heronry came into existence in late 1990s around human settlements. In October 2004, I was surprised to see two nests in 'bholuka' bamboos *Bambusa bakooa* (see plate). This was probably the first authentic record of Openbill Storks nesting in bamboo. Earlier I had reports from Gogamukh, Dhemaji district in early 1990s. The local villagers are protecting the heronry. Details are being published elsewhere.



Lower Subansiri hydroelectric project threatens elephant corridor

This mega hydroelectric project with an installed capacity of 2000 MW on the Subansiri river, a tributary of the Brahmaputra is coming up at Gerukamukh, falling partly in Dhemaji district of Assam and partly in Papum Pare and Lower Subansiri districts of Arunachal Pradesh. The site (not the dam site proper but farther down where the housing colonies and offices are located) is an important corridor for the wild elephants. This corridor links the animals of Dhemaji and the foothills region of Siang districts with those of



Lower Subansiri HE project (not to scale)

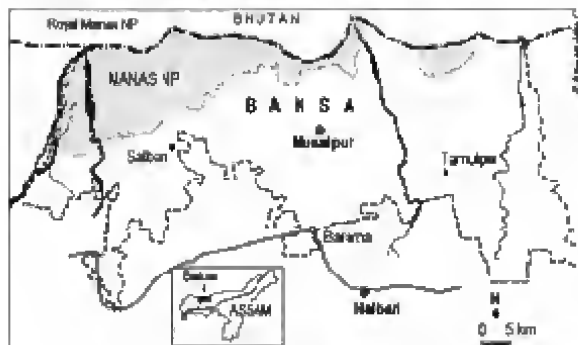
forests Lakhimpur and Papum Pare districts. With the expansion of human habitation and tea plantation towards south and steep slope towards north, the habitat near Gerukamukh became narrower over the years. With the development of roads (widening with lighting) and increased vehicular traffic, the area between the roads and the river has become a corridor with elephants using it mostly to move across the Subansiri river. The human-elephant conflict is likely to increase in the area. Already the elephants have virtually stopped using the northernmost of the routes. The next from north is also certainly going to cease with the beginning of extraction of sand/gravel/boulder from river (shoal) bed.

Some possible solutions include shifting of housing colony and main offices outside the forest area, avoiding lighting along the road inside forest and strict monitoring at the time of extraction of materials from the shoal bed of the river.

Anti-poaching drive in Baksa

An anti-poaching drive has been launched in the newly created Baksa district in north-western Assam where the bulk of the famous Manas national park is also located. The first step taken by the district administration was issue of notices [vide. No. BDF-2/2004/6, dtd September 14, 2004] to the Gaon Burhas

(village headmen) and the lessees of the markets to stop sale of any wildlife or their body parts. The Circle Officers, Block Development Officers and the Officer-in-charges of the police stations were also involved in the process. The next step was distribution of educational materials, which included the book entitled 'Wildlife Crime' by V. Menon and A. Kumar (courtesy: The Wildlife Trust of India) to police and army officials, and also to some active local groups such as the ABSU (All Bodo Students' Union) unit of Koklabari. Publications of CEE (Centre of Environment: Education) and posters of The Rhino Foundation for nature in NE India were also distributed. Copies of *The Wild Life (Protection) Act* were also given to the police stations and magistrates.



In a drive against the poachers, a party of Assam Police and CRPF had recovered 13 snares, mainly used to kill hog deer, two pieces of horn of wild buffalo and a skin of a recently killed hog deer from a village near Bhuyanpara area of Manas national park in the last week of December 2004. The police team was led by Sushil Kr. Talukdar, Officer-in-charge of Borbori and Nipu Kalita, in charge of Baganpara out post. Among other policemen who accompanied were Bijoy Boro, Abdul Karim, Simanta Phukan, Khirmohan Singh, Nripen Saikia and Prabhat Saikia.

This operation has sent a new message to the poachers that they are being pursued not only by the Forest officials but the district administration as a whole as well as police and

paramilitary forces. The poachers could escape; however, vital information on their hideouts obtained for future operations.

Obituary

JANET KEAR. Died in England on November 24, 2004 after a short fight against brain tumour, which was diagnosed only in September 2004. Dr (Mrs) Kear was well known in ornithology circle for her works on waterfowl. I never met her but was in touch on matters related to waterfowl. On her request I wrote the chapter on Lesser Tree-duck in the book *Ducks, Geese and Swans of the world*. Janet never got to see the fruits of her 13 years of work on this book in published form, the publishers, Christopher Helm and Christopher Perrins, Oxford University Press put together a facsimile of the two volumes, complete with hard covers and dust jackets, and this was given to Janet on the day she died. Demise of Kear is a loss to the international community working on research and conservation of waterfowl. Her funeral took place on 8th December, attended by some 200 relations and friends.

ABDUR RASHID (-2004). A young man of only 18 years succumbed to suspected malaria. Late Rashid was the son of late Jamal Ali, a staff of Orang national park who died during an encounter with poachers. Late Rashid had played a key role in bringing down the poaching of rhinoceros in Orang from 9-10 per year to one or nil as an informer. He used to move around in the villages looking for strangers or known poachers and report back to me or Bibhav Talukdar of Aaranyak or as an anonymous caller to the DFO (wildlife), Mangaldoi. Ultimately the poachers had to leave or were arrested. Earlier he was suffering from tuberculosis but was provided free treatment by The Rhino Foundation. His death is a major blow to conservation of rhinoceros in Orang national park.

Book Reviews

Reviewed by THE EDITOR

1. **THE ATLAS OF LOKTAK**, by C.L.Trisal and Th. Manihar. Published in 2004 by Wetlands International – South Asia Programme, New Delhi and Loktak Development Authority, Imphal (30 x 22 cm), pp. 115. Price. Not mentioned.

This coffee table sized book dealt with one of the most important freshwater ecosystems of India - Loktak lake in Manipur. Loktak is also a Ramsar Site. The book was printed in good quality paper. This should encourage other agencies of the region to sponsor such projects to showcase important sites. Maps are excellent and the reproduction was also very good. Photos were a mixed lot, some came out good (e.g., on pp. title page, 1, 15, 57, 61) but most were average. Reproductions on both front and back covers were good.

The main drawback in the book is that the issue of Ithal barrage and its impact on Loktak ecosystem was not given adequate coverage. Reference was inadequate and missed out the landmark publications of A.O.Hume, J.C.Higgins and E.P.Gee. The Manipur Association for Science and Society (MASS) was carrying out waterfowl census since 1996 but those were not reflected. In Annex III (mammalian fauna), *Mustela erminea* and *Funambulus pennanti* do not occur in Manipur. Both Annex III and Annex IV (avifauna) should have followed standard checklists. At present these do not follow any recognised sequence. The Annex IV was also confusing, as some birds have been listed as species and some as subspecies. Many names have been wrongly printed while some such as sl. 64 and 65 were same bird listed twice.

Despite these drawbacks, this atlas remains the best source of good maps on Loktak and Keibul Lamjao. □

2. **CHECKLIST OF MAMMALS OF INDIA**, by J.R.B.Altred, N.K.Sinha and G. Chakraborty. Published in 2002 by Zoological Survey of India, Kolkata. (24 x 16 cm), pp. 289. Price. Rs 350.

For long Ellerman and Morrison-Scott's '*Checklist of Palaearctic and Indian mammals, 1758 to 1946*' published by British Museum (natural history) in 1951 remained the only standard checklist for Indian mammals. Although a second edition came out in 1966, up dates were badly lacking till 1992 when '*The mammals of the Indomalayan region: a systematic review*' by Corbet and Hill (Oxford Univ. Press,



Oxford) was published. However, a comprehensive Indian account still remain far off as vital local details were not available in latter and range of many species was incorrectly shown.

With this background, the checklist by Zoological Survey of India was expected to be a comprehensive one. There were lot of unanswered questions and it is difficult to say whether these were inadvertent or lack of cross checking. On p.83, West Bengal has been included within the range of slow loris but so far there is no authentic record. P. 85, the Assamese macaque occurs up to central Nepal only towards west thus its occurrence in Uttar Pradesh needs clarification. P. 86, Pig-tailed macaque is also found in Manipur, Mizoram and eastern Arunachal Pradesh. On p.88, golden langur's distribution is an

out-dated one. Goalpara district was reorganised in 1983 (two decades), the Sankosh river no longer forms part of Goalpara. The type locality also needed correction. P. 89, Phayre's leaf monkey has also been recorded in Mizoram. P.93, what is the status of dhole in north east India? Only Sikkim has been mentioned. P.150, for several decades, the pigmy hog is known only from Assam and not Sikkim. P.152, No musk deer occurs in Assam as mentioned in case of *Moschus moschiferus*. P. 153, the chital also occurs in western Assam. P. 160, gaur occurs widely in Arunachal Pradesh but not mentioned. It also occurs in all other northeastern states. P. 163, takin occurs all over Arunachal Pradesh in higher elevations and not confined to Mishmi Hills alone. P. 166-167, serow occurs all over north eastern states except the floodplains and not only in Arunachal Pradesh as mentioned. P. 168-169, blue sheep also occurs in Arunachal Pradesh but not mentioned in the book. P. 184-185, the widely used common name for *Petaurista elegans* is Grey-headed giant flying squirrel and it also occurs in Arunachal Pradesh. P. 227, pikas occur at very high elevations, hence, it is not understood how *Ochotona forresti* could occur in Assam? All these errors were in larger species; probably there were many more in bats and rodents, which I did not treat in details.

The main reason for which the data provided are out dated was that recent papers in reputed journals were not referred as is evident from the bibliography. It is obvious that this book needs major corrections and updating. □

3. MOUNTAIN UNGULATES Envis bulletin, by S. Sathyakumar and Y.V.Bhatnagar. Published in 2002 by Wildlife Institute of India, Dehra Dun. (27 x 21 cm), pp. 132. Price. Not mentioned.

Of all the ENVIS bulletins (a project launched by government of India for better dissemination of data), the one produced by the Wildlife Institute of India was comparatively better and well edited. This issue was devoted to the ungulates that inhabit the Himalaya. On p.1, the subspecies *caudatus* of goral has not been mentioned although it occurs in north east India. On p.2, the range of serow in north east India has not been shown correctly. It is widespread. In table 1 on p.48, Himalayan tahr has been listed for Namdapha but review on p.4 gives a contradictory picture. Actually it is not found. Despite these factual errors, this publication is a useful document. □

Checklist of Mammals of India

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ZOOLOGICAL SURVEY OF INDIA

4. MY THREE YEARS IN MANIPUR, by Ethel St. Clair Grimwood. Published in 2000 by Gyan Publishing House, New Delhi. (22.5 x 14.5 cm), pp. 204 ISBN: 81-212-0135-7. Price. Rs 250.

The book was no doubt a reprint of a classic publication of early 20th century although the new publishers did not mention anything. The author was wife of a British Political Agent and the book is basically her memoirs. This readable book narrates the scenario of Manipur with some information on Assam's Cachar district, Shillong and Sylhet in 19th century. Anybody familiar with these places would find it interesting reading. Her husband was ultimately killed in a rebellion. The book also throws some light on the wildlife such as occurrence of tiger and hoolock (mentioned as hooluck), and regular duck shooting in Loktak lake. There were printing mistakes here and there. □

5. **ATMAGHATI PAKHI**, by Amal Gupta. Published in 2001 by Granthalitha, Kolkata. [In Bengali. (21 x 14 cm), pp. 63. ISBN: 81-7572-097-2. Price. Rs 35.

Amal Gupta is a senior journalist based at Guwahati. He has keen interest in environment and has also authored a couple of other books on environmental issues. This small book contains some articles on the birds, mostly of different areas in Assam including Deepor beel. However, the bird phenomenon of Jatinga has been covered in greater details spread over five out of 13 chapters of the book. This reviewer wrote the introduction. There were some inadvertent printing errors in the 'introduction' where Orang has been mentioned as 'hilly' sanctuary. The book also contains black-and-white illustrations both photo and line drawings. This book would be useful for Bengali-speaking areas of Assam while readers in West Bengal, Bangladesh, etc., will also find it interesting reading. □

6. **IMPORTANT BIRD AREAS IN INDIA**, edited by Zafar-ul-Islam and Asad R. Rahmani. Published in 2004 by Bombay Natural History Society, Mumbai and BirdLife International, UK. (30.5 x 22 cm), pp. 1,150. ISBN: 019 567333 6. Price. Rs 3000.

A large, heavy and colourful book. This important publication is the result of a five years nationwide effort through workshops and interactions. It lists and describes more than 465 sites of India, which are important for birds. Around 600 colour photographs supported this. The paper and reproduction of colour photos were of high quality. The format of presentation of accounts of different sites allowed smooth reading and also easy to locate as all (except a few in one or two states, may be later entries) were listed alphabetically. Different colours were used for different states. The book would be extremely useful as a reference document for Forest and Environment departments, Tourism departments, researchers, students as well as others. Probably for the first time such a large number of natural sites (most of the

important bird areas are also important for other wildlife, nature and are sites of scenic beauty). The book also highlights the threats to these important sites. Each site account is complete with references and hence, readers need not go to end repeatedly to consult full references.

There were no major drawbacks save for some minor spelling errors and printing mistakes. In many site accounts, more than half a page was left blank, which photographs could have filled up.

This book is highly recommended for anybody interested on the birds and their major haunts in India, eco-tourist planners and guides, Forest departments, conservationists, students and even tourists.

It would be useful if smaller editions on the basis of states or regions are brought out as reprints (hence, expenditure will be subsidised). This will ensure smooth carriage and a more affordable price for general but interested public. □



Vanishing habitat threatens Phayre's leaf monkey

ANWARUDDIN CHOUDHURY

Bespectacled', hairy and with long tail, Phayre's leaf monkey *Presbytis (=Trachypithecus) phayrei* of southern Assam's Barak valley districts is a remarkable primate. Also often called the Spectracted monkey, this largely vegetarian species also occurs in Tripura and Mizoram in India, and parts of Bangladesh and south east Asia. It has also been reported from southern areas of Churachandpur district in Manipur (see map, opposite page).

It was in 1986 that I sighted the first *phayrei* in Assam near Garmura in Innerline RF (RF=reserve forest) of Hailakandi district. Subsequently, it could be located in most of the forested areas of southern Cachar, Hailakandi and Karimganj. In other parts of Innerline RF, Katakhali RF, Shingla RF, Longai RF, Badshahitilla RF, Tilbhum RF, Dohalia RF, Patharia Hill RF and also reported from southern parts of Barak RF. The monkey has also been recorded in unclassified forests north of Innerline RF in Cachar and Hailakandi, and in small patches of woodland in tea estates in southern Karimganj.

Massive habitat loss

Since its discovery in Assam in 1986, the leaf monkey has lost at least a third of its habitat in slightly less than two decades. In Mizoram and Tripura, the scenario was similar. If approximate habitat availability of around 1970 is considered, then the loss is not less than 50 per cent in its entire range in India. The main causes of such loss were *jhum* (shifting) cultivation, illegal felling of trees, large-scale bamboo harvesting for paper mills and encroachment.

Fragmentation and poaching

In Karimganj alone, the langurs of Patharia RF, for example cannot move to any other

forest while those in tea gardens such as Putni are confined to tiny pockets of bamboo and trees. It is estimated that at least 10 such isolated subpopulations are there in Karimganj alone. At places, the langurs are raiding crops also. Situation in Tripura and Mizoram is worse. Large-scale *jhum* cultivation and felling has resulted in severe fragmentation. In Tripura, due to insurgency there is no movement of departmental officials in the interior areas.

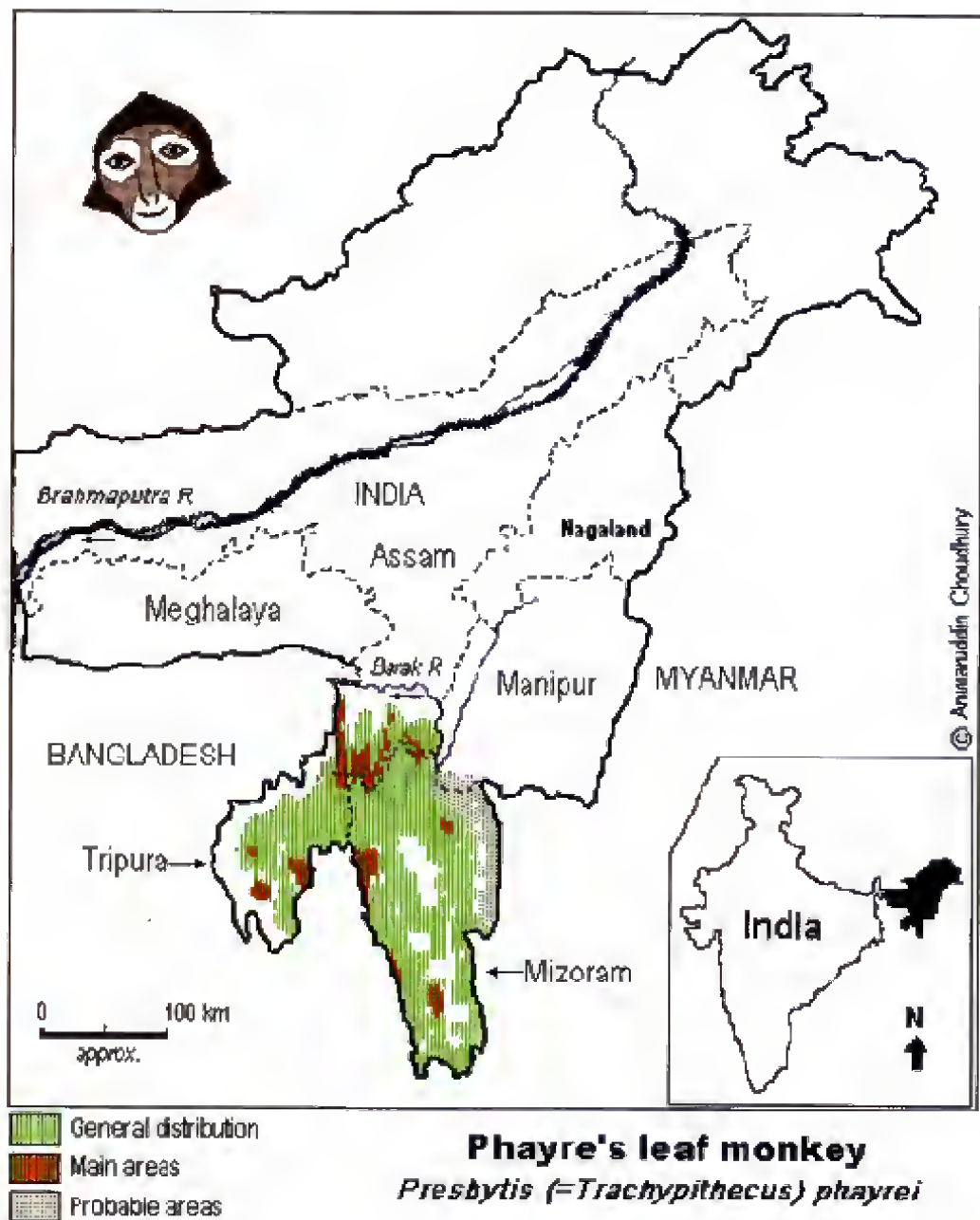
Most of the poaching of Phayre's leaf monkey is for meat for the pot and not trade. All the tribes inhabiting Barak Valley, Mizoram and Tripura take primate meat and any langur within easy reach is killed.

Future !

In such a situation, there is little hope for long-term survival of many subpopulations. There is no protected area in Assam for Phayre's leaf monkey. In Tripura and Mizoram, it has been reported from three and two protected areas respectively. These protected areas are again inadequately managed. At Putni, I had initiated a conservation programme under Forest Development Agency through Social Forestry Division of Karimganj in 2003. If it succeeds then small-pocketed monkeys elsewhere can also be covered by such efforts.

In the guise of bamboo flowering, some vested groups are trying to harvest all the bamboos without giving scant regard to the 'original dwellers' of bamboo habitats (see cover photograph).

Creation of protected areas in Barak valley (such as Dhaleswari and Patharia), adequate protection of key sites such as Dampa and Ngengpui in Mizoram and Gumti and Trishna in Tripura, awareness campaign and check on poaching are recommended. □



In the guise of bamboo flowering, some vested groups are trying to harvest all the bamboos without giving scant regard to the 'original dwellers' of bamboo habitats (see cover photograph).



Help the authorities in apprehending elephant poachers

This elephant was killed by poachers in Subankhata reserve forest, Baksa district and photographed on October 2, 2004. Although the elephants are revered and worshiped, there is little public outcry against such savage killings!



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